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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,183	11/28/2001	Richard C. Abbott	50243/003002	2277

7590 09/20/2004
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EXAMINER

FASTOVSKY, LEONID M

ART UNIT PAPER NUMBER

3742

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/996,183	Applicant(s) ABBOTT ET AL.	
	Examiner Leonid M Fastovsky	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 77-104 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 77-104 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 77-80, 88, 90-95 and 103 are rejected under 35 U.S.C. 102(b) as being anticipated by Fletcher (6,127,654).

Fletcher teaches a resistive heater and method of making a resistive heater and having a controlled resistivity (col. 5, lines 19-67), having a substrate 812 (Fig. 8B), a resistive heating layer 816 comprising of alloy of nickel (col. 6, lines 16-17), a metallic layer 814 superficial to the resistive layer 816, and a power source 860. Fletcher also teaches that the layer 816 comprises of at least 60% of the free metal because it is not oxidized and the rest is metal oxide after having a metallic component reacting with oxygen by flame spraying (col. 5, lines 43-67).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 81-85, 96-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher in view of Tsukuda (4,808,490).

Fletcher teaches substantially the claimed invention, but does not teach an insulating layer, an adhesion layer comprising Zr oxide and protective layer. Tsukuda teaches a plasma sprayed film resistor (Fig. 2) comprising a Zr oxide insulating layer 20, an adhesive layer 18 and protective layer 17. It would have been obvious to one having ordinary skill in the art to modify Fletcher's invention to include an insulation layer comprising an Zr oxide, an adhesive layer and a protective layer to sustain a humid environment as taught by Tsukuda (col. 3, lines 30-63).

5. Claims 86-87 and 101-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher in view of Tsukuda and further in view of Hyllberg (6,069,346).

Fletcher in view of Tsukuda teaches substantially the claimed invention including a layer 24 superficial to the resistive layer 22, but does not teach that the layer 24 is ceramic. Hyllberg teaches a ceramic layer 18 comprising alumina and is superficial to the resistive layer 17 (col. 4, lines 55-65). It would have been obvious to one having ordinary skill in the art to modify Tsukuda's invention in the invention of Fletcher to include a ceramic layer in order to transfer heat between the resistive layer and the work object as taught by Hyllberg (col. 4, lines 55-58).

6. Claims 89 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fletcher in view of Iimura et al (4,724,305).

Fletcher teaches substantially the claimed invention, but does not teach a metallic layer comprising Mo. Imura teaches a heating roller comprising a bonding layer 2, the layer made out of Mo (col. 5, lines 24-33). It would have been obvious to one having ordinary skill in the art to modify Fletcher's invention to include Mo in the metallic layer in order to generate heat by itself and form an oxide which enhances the strength of the bonding as taught by Imura (col. 5, lines 24-33).

Response to Arguments

7. Applicant's arguments with respect to claims 77-104 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 703-306-5482. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'L. Fastovsky', written in a cursive style.

Leonid M Fastovsky

Examiner

Art Unit 3742

Imf